

RINGKASAN

Tri Ratna Anggara, Program Magister Peternakan, Fakultas Peternakan, Universitas Jenderal Soedirman. Penambahan Pasta Kefir terhadap Karakteristik Fisik, Kimia dan Mikrobiologi Sosis Fermentasi Daging Ayam. Pembimbing: Ir. Juni Sumarmono, M.Sc. Ph.D dan Dr.Ir. Agustinus Hantoro Djoko Raharjo, Mp.

Kefir merupakan salah satu produk minuman susu fermentasi yang mengandung mikroorganisme komplek. Biji kefir terdiri dari campuran simbiosis mikroba bakteri asam laktat (BAL) (10^8 cfu/g), *yeast* (10^6 - 10^7 cfu/g), dan bakteri asam asetat (10^5 cfu/g). Keanekaragaman mikroorganisme pada kefir berpotensi meningkatkan kualitas sosis fermentasi. Strain bakteri yang telah ada diharapkan mampu bersaing dan saling berinteraksi dengan bakteri yang berasal dari kefir, sehingga bakteri patogen tidak berkembang. Tujuan dari penelitian ini adalah untuk mengevaluasi penambahan pasta kefir terhadap karakteristik sosis fermentasi daging ayam yang dihasilkan meliputi fisik, kimia dan mikrobiologi. Bahan utama pembuatan sosis yaitu daging dan lemak ayam pedaging umur 30-35 hari dengan bobot 1,5-1,8 kg/ekor. Bahan tambahan yaitu garam 2%, gula halus (sukrosa) 1,5% dan bumbu bubuk kering (bawang putih 0,5%, lada putih 0,5%, cabai merah 0,5%, paprika merah 0,3%, dan kunyit 0,2%). Bahan yang disiapkan kemudian dicampur sampai homogen dan diberi tambahan pasta kefir yaitu 0%, 0,5%, 1%, 1,5% dan 2%. Kemudian dimasukkan kedalam selongsong selulosa berdiameter 23 mm dengan panjang 10 cm. Tahap fermentasi terdiri dari tahap pengkondisian selama 17 jam dan 7 jam untuk pengeringan. Selanjutnya, disimpan selama 3 hari pada *refrigerator* suhu 15-19⁰ C dengan diselingi pengasapan selama 1,5 jam pada hari ke 3 proses fermentasi. Peubah yang diamati yaitu karakteristik fisik meliputi, warna (kecerahan, kemerahan dan kekuningan) dan tekstur (ketegaran). Karakteristik kimia meliputi pH, KAL, total padatan, kadar air, abu, protein dan lemak. Karakteristik mikrobiologi meliputi total BAL dan *yeast*. Data yang diperoleh dianalisis menggunakan analisis variansi. Apabila terdapat pengaruh nyata dilanjutkan uji Duncan Multiple Range Test (DMRT) dan uji orthogonal polinomial menggunakan SPSS 17.

Hasil penelitian menunjukkan penambahan pasta kefir tidak berpengaruh nyata terhadap nilai ketegaran, kekuningan, kadar abu, total BAL dan *yeast*. tetapi, berpengaruh terhadap kecerahan, kemerahan, nilai pH, KAL, total padatan, kadar air, kadar protein dan kadar lemak. Rataan nilai karakteristik sosis fermentasi meliputi ketegaran (41,68 N - 57,23 N), kecerahan (20,90 - 26,10), kemerahan (-4,90 - (-1,80)), kekuningan (8,65 - 11,85), nilai pH (5,26 - 5,98), kadar asam laktat (0,88% - 1,53%), total padatan (34,11% - 37,80%), kadar air (62,19% - 65,89%), kadar abu (3,15% - 4,05%), kadar protein (22,59% - 24,34%), kadar lemak (38,14% - 52,28%), total BAL (8,64 - 8,84 log cfu/g) dan *yeast* (7,92 - 8,44 log cfu/g). Kesimpulan : Semakin tinggi penambahan pasta kefir sampai dengan 2% dari total adonan akan menghasilkan nilai rata-rata karakteristik mikrobiologi yang relatif sama, sedangkan karakteristik fisik dan kimia (KAL, total padatan, kadar protein dan lemak) sosis fermentasi daging ayam menurun.

SUMMARY

Tri Ratna Anggara, Masters Program in Animal Science, Faculty of Animal Husbandry, Jenderal Soedirman University. Addition of Kefir Pasta on Characteristics of Physical, Chemical and Microbial Fermented Sausage Chicken Meat. Supervisor: Ir. Juni Sumarmono, M.Sc. Ph.D and Dr. Ir. Agustinus Hantoro Djoko Raharjo, Mp.

Kefir is a fermented milk drink product containing the microorganism complex. Kefir seeds comprising a mixture of lactic acid bacteria microbial symbioses (BAL) (10^8 cfu / g), yeast (10^6 - 10^7 cfu / g), and acetic acid bacteria (10^5 cfu / g). Diversity of microorganisms in kefir has the potential to improve the quality of fermented sausage. Strain existing bacteria is expected to compete and interact with bacteria from kefir, so pathogens do not thrive. The purpose of this study was to evaluate the addition of pasta kefir fermented sausages on the characteristics of chicken meat produced include physical, chemical and microbial. The main ingredient is the manufacture of sausage meat and fat broilers aged 30-35 days with a weight of 1.5 to 1.8 kg / head. Additional materials namely 2% salt, refined sugar (sucrose) 1.5% and the dried powder seasoning (garlic 0.5%, white pepper 0.5%, red chili 0.5%, red peppers 0.3%, and turmeric 0.2%). Materials prepared then mixed until homogeneous and was given extra pasta kefir is 0%, 0.5%, 1%, 1.5% and 2% and then put into cellulose casings 23 mm in diameter with a length of 10 cm. Stage Fermentation comprising the step of conditioning for 17 hours and 7 hours for drying. Furthermore, stored for 3 days at refrigerator temperature of 15-19°C, punctuated by curing for 1.5 hours on day 3 of the fermentation process. Variables observed that the physical characteristics include, color (brightness, redness and yellow) and texture (firmness). Chemical characteristics include pH, KAL, total solids, moisture, ash, protein and fat. Microbial characteristics include total LAB and yeast. Data were analyzed using analysis of variance. If there is a real effect of continued test of Duncan's Multiple Range Test (DMRT) and orthogonal polynomials test using SPSS17.

The results showed the addition of pasta kefir did not significantly affect the value of firmness, yellow, ash content, total LAB and yeast. However, the effect on brightness, redness, pH value, KAL, total solids, water content, protein content and fat content. The average value of the characteristics of fermented sausages include firmness (41.68 N - 57.23 N), brightness (20.90 - 26.10), redness (-4.90 - (- 1.80), yellow (8.65 - 11.85), pH (5.26 - 5.98), the levels of lactic acid (0.88% - 1.53%), total solids (34.11% - 37.80%), water content (62,19% - 65.89%), ash content (3.15% - 4.05%), protein content (22.59% - 24.34%), fat content (38.14% - 52.28%), total BAL (8.64 - 8.84 log cfu / g) and yeast (7.92 - 8.44 log cfu / g). Conclusion: the higher the addition of pasta kefir up to 2% of the total dough will amount to the value of the average microbial characteristics are relatively similar, while the physical and chemical characteristics (KAL, total solids, protein content and fat) fermented sausage chicken meat declined.